



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D2574

Job Sheet 175176



Part No: D2574

Job Qty: 10 ea

Part Name: Saddle, Aft, In



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 3/28/18

Job Tracking No:

Due Date: 4/13/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV F IPP Rev: I As Per RevE 06-01-27 JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	10 Ea		4/12/18	0.00	0.00	Start Up Machining		2/18/18 18/04/05
100	CNC Vertical Machining	10 pcs		4/12/18	1.21	15.63	HAAS 1		1/18/18 18/04/13
110	Mill Conv	10 pcs		4/12/18	0.00	1.25	Mill Conv 1		1/18/18 18/04/13
120	QC	10 pcs		4/12/18	0.00	0.00	QC2		1/18/18 18/04/13
130	QC	10 pcs		4/12/18	0.00	0.00	QC8		1/18/18 18/04/13
140	HandFinish	10 pcs		4/12/18	0.00	0.40	HandFinish1		1/18/18 18/04/13
150	Powdercoat	10 pcs		4/13/18	0.00	0.33	Powdercoat1		1/18/18 18/04/13
160	QC	10 pcs		4/13/18	0.00	0.00	QC3		1/18/18 18/04/13
170	Packaging	10 pcs		4/13/18	0.00	0.00	Packaging3		1/18/18 18/04/13
180	QC21-SA	10 Ea		4/13/18	0.00	0.00	QC21		1/18/18 18/04/13

Part Op 100 - Program Batch No. _____ 1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets
Descriptions: 2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets

110 - Machine keyway as per dwg D2573 & D2574

150 - START TIME: 9:05 FINISH TIME: 9:55 O.T. 3:00 M 139760

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6101-005	Saddle Billet	10 Ea (1 ea)	90-Start up Operation	

5038651 -> 5058304

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D6101-005	10	29	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Saddle, Aft Inboard	0.438Inches	+ 0.005 - 0.000	0.443 0.438	
2	Saddle, Aft Inboard	1.745Inches	+ 0.010 - 0.000	1.755 1.745	
3	Saddle, Aft Inboard	3.495Inches	+ 0.010 - 0.000	3.505 3.495	
4	Saddle, Aft Inboard	1.745Inches	+ 0.010 - 0.000	1.755 1.745	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION		AGAINST DEPARTMENT/PROCESS							
	Rework	☐	Skid-tube	☐	Cross tube	☐	Water Jet	☐	Engineering	☐
	Scrap	☐	Machining	☐	Small Fab	☐	Prod. Eng. Coord.	☐	Quality	☐
	Use-as-is	☐	Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐	Other	☐
	Suspected Unapproved	☐	Large Fab	☐	Composite	☐	Supplier	☐		

Date : _____ Step #: _____ QTY Effective : _____ MRB (QSI042) Approval _____

Description Work Order Deviation

Dart Aerospace Ltd.
 1270 Aberdeen Street
 Hawkesbury, ON K6A 1K7
 CANADA
 TEL.: 1 813 632-5200
 Email: sales@dartaero.com
 www.dartaerospace.com

Date: 04/05/18

Root Cause				Pressure/Forced				Contamination				Out of Sequence				Part Moved			
Environment	☐	No Re-verification	☐	Bending	☐	Countersink	☐	Off-set	☐	Drawing	☐	Design	☐	Offset/Setup	☐	Finishing	☐		
Doc/Data	☐	Supplier	☐	Centre Not Concentric	☐	Cut Too Short	☐	Mislabeled	☐	Fit/Function	☐	Material	☐	Cracks	☐	Misaligned/off center	☐		
Equip/Tooling	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Instructions Incomplete/Unclear	☐	Drill Holes	☐	Turning Sequence	☐	Handling/Pre	☐	Cuffs	☐	Use for Testing	☐		
Internal Transport	☐	Poor Information	☐	Crushing	☐	Wave/Twist in Tube	☐	Marks/Chatter	☐	OTHER :	☐	Substation	☐	Heat Treat	☐	Product Improvement	☐		
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Product Improvement	☐	Process Improvement	☐	Manufacturing Process	☐	Past Expiry Date	☐	Crushing	☐	Process Improvement	☐		
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Product Improvement	☐	Process Improvement	☐	Manufacturing Process	☐	Misidentified	☐	Heat Treat	☐	Product Improvement	☐		
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	OTHER :	☐												
Past Expiry Date	☐	Manufacturing Process	☐																
Misidentified	☐	Past Due	☐																



Container No: S058309

Part: D2574

Job No: 175176

Serial No/Batch: S058309

Revision: Rev.F

Inspector:

5	Saddle, Aft Inboard	7.990Inches	+ 0.020 - 0.000	8.010 7.990
6	Saddle, Aft Inboard	0.490Inches	+ 0.020 - 0.000	0.510 0.490
7	Saddle, Aft Inboard	0.257Inches	+ 0.005 - 0.000	0.262 0.257
8	Saddle, Aft Inboard	0.375Inches	+ 0.005 - 0.000	0.380 0.375
9	Saddle, Aft Inboard	0.490Inches	+ 0.020 - 0.000	0.510 0.490
10	Saddle, Aft Inboard	1.174Inches	+ 0.010 - 0.000	1.184 1.174
11	Saddle, Aft Inboard	0.558Inches	+ 0.020 - 0.000	0.578 0.558
12	Saddle, Aft Inboard	1.174Inches	+ 0.010 - 0.000	1.184 1.174
13	Saddle, Aft Inboard	1.365Inches	+ 0.010 - 0.000	1.375 1.365
14	Saddle, Aft Inboard	2.495Inches	+ 0.010 - 0.000	2.505 2.495
15	Saddle, Aft Inboard	4.119Inches	+ 0.010 - 0.000	4.129 4.119
16	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
17	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
18	Saddle, Aft Inboard	0.240Inches	+ 0.020 - 0.000	0.260 0.240
19	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
20	Saddle, Aft Inboard	0.178Inches	+ 0.020 - 0.000	0.198 0.178
21	Saddle, Aft Inboard	3.210Inches	+ 0.040 - 0.000	3.250 3.210
22	Saddle, Aft Inboard	0.230Inches	+ 0.020 - 0.000	0.250 0.230
23	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
24	Saddle, Aft Inboard	0.307Inches	+ 0.005 - 0.000	0.312 0.307
25	Saddle, Aft Inboard	0.760Inches	+ 0.005 - 0.000	0.765 0.760
26	Saddle, Aft Inboard	0.352Inches	+ 0.020 - 0.000	0.372 0.352
27	Saddle, Aft Inboard	0.470Inches	+ 0.060 - 0.000	0.530 0.470
28	Saddle, Aft Inboard	0.615Inches	+ 0.020 - 0.000	0.635 0.615
29	Saddle, Aft Inboard	0.053Inches	+ 0.020 - 0.000	0.073 0.053
30	Saddle, Aft Inboard	0.240Inches	+ 0.020 - 0.000	0.260 0.240
31	Saddle, Aft Inboard	1.500Inches	+ 0.020 - 0.000	1.520 1.500
32	Saddle, Aft Inboard	0.115Inches	+ 0.020 - 0.000	0.135 0.115
33	Saddle, Aft Inboard	0.240Inches	+ 0.040 - 0.000	0.280 0.240
34	Saddle, Aft Inboard	0.240Inches	+ 0.020 - 0.000	0.260 0.240
35	Saddle, Aft Inboard	2.000Inches	+ 0.020 - 0.000	2.020 2.000
36	Saddle, Aft Inboard	0.023Inches	+ 0.020 - 0.000	0.043 0.023

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

DART AEROSPACE LTD	Work Order: 175 176
Description: Saddle, Aft Inboard	Part Number: D2574
Inspection Dwg: D2574 Rev. F	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				1	2	3	4		
A	0.438	0.443		0.438	0.438	0.438	0.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.000	8.001	8.002	8.002		
F	0.490	0.510		0.498	0.495	0.496	0.496		
G	0.257	0.262		0.257	0.257	0.257	0.257		
H	0.375	0.380		0.375	0.375	0.375	0.375		
I	0.490	0.510		0.499	0.499	0.500	0.4975		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		0.568	0.568	0.569	0.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.369	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.122	4.124	4.124	4.124		
P	0.115	0.135		0.133	0.128	0.128	0.125		
Q	0.115	0.135		0.125	0.124	0.124	0.124		
R	0.240	0.260		0.252	0.251	0.250	0.252		
S	0.115	0.135		0.125	0.125	0.125	0.126		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.231	3.230	3.230	3.230		
V	0.230	0.250		0.239	0.240	0.240	0.240		
W	0.115	0.135		0.128	0.127	0.120	0.118		
X	0.307	0.312		0.311	0.310	0.311	0.310		
Y	0.760	0.765		0.760	0.760	0.761	0.761		
Z	0.352	0.372		0.367	0.364	0.364	0.363		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635	0.623 →	0.621	0.621	0.622	0.621		
AC	0.053	0.073		0.061	0.068	0.065	0.063		
AD	0.240	0.260		0.245	0.250	0.250	0.250		
AE	1.500	1.520		1.510	1.510	1.510	1.500		
AF	0.115	0.135		0.130	0.130	0.130	0.134		
AG	0.240	0.280		0.256	0.250	0.250	0.250		
AH	0.240	0.260		0.250	0.252	0.250	0.250		
AI	2.000	2.020		2.000	2.000	2.000	2.000		
AJ	0.023	0.043		0.033	0.033	0.033	0.033		

Accept/Reject

DAS

Measured by: SBL 10/15	Audited by: 20 18-04-19
Date: 18/04/05	Date: 9-89

Rev	Date	Change	Revised by	Approved
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	
F	13.03.07	Dwg Rev updated	KJ	

DART AEROSPACE LTD		Work Order:	
Description: Saddle, Aft Inboard		Part Number: D2574	
Inspection Dwg: D2574 Rev. F		Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	5	26	27	28		
A	0.438	0.443		0.438	0.438	0.438	0.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.50		
D	1.745	1.755		1.7500	1.750	1.750	1.750		
E	7.990	8.010		8.003	8.002	8.003			
F	0.490	0.510		0.506	0.496	0.496			
G	0.257	0.262		0.257	0.257	0.257	0.257		
H	0.375	0.380		0.375	0.375	0.375	0.375		
I	0.490	0.510		0.498	0.498	0.5003			
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		0.5665	0.5665	0.5665			
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		0.135	0.135	0.135			
Q	0.115	0.135		0.124	0.124	0.124	0.124		
R	0.240	0.260		0.251	0.250	0.250	0.250		
S	0.115	0.135		0.126	0.126	0.132			
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.230	3.230	3.230	3.230		
V	0.230	0.250		0.237	0.240	0.240			
W	0.115	0.135		0.132	0.132	0.133			
X	0.307	0.312		0.3105	0.311	0.311			
Y	0.760	0.765		0.761	0.760	0.760	0.760		
Z	0.352	0.372		0.363	0.363	0.364			
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.622	0.628	0.622			
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260		0.249	0.251	0.250			
AE	1.500	1.520		1.500	1.500	1.500	1.500		
AF	0.115	0.135		0.130	0.134	0.133			
AG	0.240	0.280		0.250	0.250	0.250	0.250		
AH	0.240	0.260		0.250	0.250	0.250			
AI	2.000	2.020		2.000	2.000	2.000	2.00		
AJ	0.023	0.043		0.033	0.033	0.033	0.033		

Accept/Reject

DAS

Measured by:	SB
Date:	18/04/06

Audited by:	20
Date:	18-04-19

Rev	Date	Change	Revised by	Approved
B	02.09.27	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
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DART AEROSPACE LTD		Work Order:	
Description: Saddle, Aft Inboard		Part Number: D2574	
Inspection Dwg: D2574 Rev. F		Page 1 of 1	

Inspect dimensions highlighted on inspection sheet drawing D2574 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	8.1	8.10	9	10		
A	0.438	0.443	0.438	0.438		0.438	0.438		
B	1.745	1.755	1.750	1.750		1.750	1.750		
C	3.495	3.505	3.500	3.500		3.500	3.500		
D	1.745	1.755	1.750	1.750		1.750	1.750		
E	7.990	8.010							
F	0.490	0.510							
G	0.257	0.262	0.257	0.257		0.257	0.257		
H	0.375	0.380	0.375	0.375		0.375	0.375		
I	0.490	0.510							
J	1.174	1.184	1.179	1.179		1.179	1.179		
K	0.558	0.578							
L	1.174	1.184				1.179	1.179		
M	1.365	1.375				1.375	1.375		
N	2.495	2.505				2.500	2.500		
O	4.119	4.129				4.124	4.124		
P	0.115	0.135							
Q	0.115	0.135				0.124	0.124		
R	0.240	0.260				0.250	0.250		
S	0.115	0.135							
T	0.178	0.198				0.188	0.188		
U	3.210	3.250				3.230	3.230		
V	0.230	0.250							
W	0.115	0.135							
X	0.307	0.312							
Y	0.760	0.765				0.760	0.760		
Z	0.352	0.372							
AA	0.470	0.530				0.500	0.500		
AB	0.615	0.635							
AC	0.053	0.073				0.063	0.063		
AD	0.240	0.260							
AE	1.500	1.520				1.500	1.500		
AF	0.115	0.135							
AG	0.240	0.280				0.250	0.250		
AH	0.240	0.260							
AI	2.000	2.020				2.000	2.000		
AJ	0.023	0.043				0.063	0.063		
Accept/Reject									

Measured by:	
Date:	

Audited by:	20	18-04-19
Date:	9-89	

Rev	Date	Change	Revised by	Approved
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